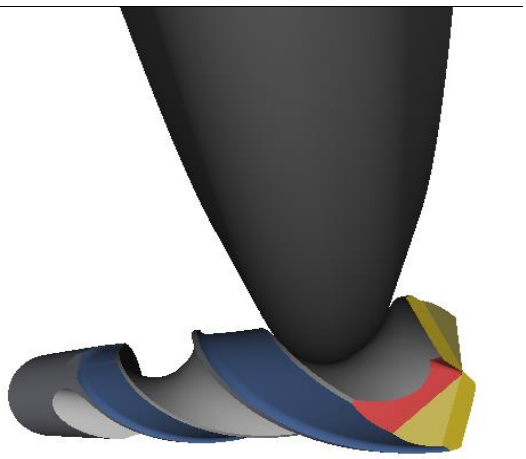
Application Data Sheet

Drill Ø8 Z2

A05-064

Flute form wheel designed with inverse flute calculation based on a cross-section-DXF of the drill. Flute is ground in two passes, a creep feed roughing and a polishing cycle. For this test the drill wasn't supported by a v-shell but for a series production this would be recommended.



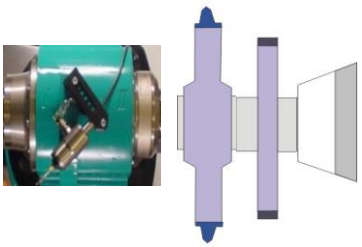
1. Cycletime for Production

Workpiece: Diameter 8 mm, Z 2, Length of cutting edge 40 mm, Helix angle 30º Material CARBIDE							
Operations	Probe	Flute 1	Break back	Gashing	O.D.2	End 2	End 1
Feed [mm/Min]	2000	60	300	70	120	50	70
Power [kW]		3	2	2	1	1	1
Cutting speed [m/s]		20	20	22	20	22	22
Used wheels		1	1	2	3	3	5
Grinding time [s]	8	196	51	23	83	40	33
Total cycle time		7 Min 13					

The cycle times are indicative. Material to be ground, grinding wheels, coolants can influence the cycle times considerably.

2. Used Grinding Wheels

1	DXF Ø150 D64
2	1A1 Ø125 D64
3	11V9 Ø100 D64



1 2 3

3. Machine and Software Requirements

Machines: 5 axes CNC grinders : NGC
Control: Fanuc 3x
Accessories:
Coolant: Synthetic Oil, pressure 6 bar
Software: Quinto 5

Responsible engineer: OP, 13.9.16

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